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ABSTRACT

Information and exercises on writing behavioral objectives and on deriving them from goal statements is contained in this self-instructional manual, one of twelve documents describing the Career Planning Support System (CPSS) and its use. (CPSS is a comprehensive guidance program management system designed to provide information for local high schools to design, implement, and evaluate an upgraded career guidance program. CPSS describes how existing activities can be brought into an integrated systematic approach for the delivery of career guidance services which would enable teachers, counselors, students, and community members to decide on a specific program to be followed.) Areas discussed in this manual include the following: (1) parts of behavioral objectives (pretest, actors, behavior, conditions, degree of success, posttest), (2) types of behaviors (pretest, cognitive domain, affective domain, psychomotor domain, less and more complex behaviors, posttest), (3) types of behavioral objectives (criterion objectives, enabling objectives, posttest), and (4) deriving criterion and enabling objectives. The appendix contains example behaviors for objectives. Answers are provided to pre- and posttests in the course of the text. (TA)

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MANUAL FOR WRITING BEHAVIORAL OBJECTIVES

CAREER PLANNING SUPPORT SYSTEM

by

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and
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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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INTRODUCTION

Behavioral objectives are an important part of the career guidance program your school is developing. They state explicitly what behavior is expected of students, faculty and staff, administrators, and whoever else is involved in career development. Behavioral objectives also provide a means for communicating clearly what results administrators, faculty and staff, parents, and students should expect of your career guidance program. In addition, they serve as the criteria for determining the effectiveness of the program.

This manual provides information and exercises on writing behavioral objectives and on deriving them from goal statements. These tasks are not easy. Behavioral objectives that are both worthwhile to achieve and specific enough to measure are often difficult to construct. Creative and analytic skills will be needed to derive behavioral objectives from goals. But, in terms of your career guidance program, the results of writing meaningful and measurable behavioral objectives should be well worth the effort.

After completing this manual, you should be able to do the following:

A. Given four behavioral objectives, you will identify the four parts of behavioral objectives without error.

B. Given a list of non-behavioral objectives, you will describe the deficiency in each objective without error.

C. Given a list of behaviors, you will select behaviors that are examples of cognitive, affective, or psychomotor behaviors.

D. You will define criterion and enabling objectives.

You may already be quite familiar with the derivation of behavioral objectives. If so, you are nevertheless encouraged to take the few minutes necessary to go through this manual, not only to refresh your knowledge, but also because the terms that will be used during CPSS may be different from those with which you are familiar. Here are some things you should know prior to beginning this manual.

A. The manual is self-instructional. You may work at your own pace to complete it.

B. Many of the steps in this manual are question-and-answer steps. It will be easier to concentrate on one step at a time if you use a cover sheet to cover the answers beneath the step you are reading. Write your answer to each question before you uncover the answer.

C. You will need the following materials:

1. Pencils
2. A cover sheet or mask card (large index card)
3. Scratch paper on which to record your answers

D. Write all your answers to test and practice questions on scratch paper. Do not write in this manual because other people will be using it, too.

E. Follow the instructions. When you get to the bottom of a page, continue to the next page unless you are instructed to do otherwise.

NOTE:	Looking ahead or leaving out steps probably will make it more difficult for you to learn the skills that you need.

Begin the self-instructional sections of this manual with Step 1 on the next page.

A. PARTS OF BEHAVIORAL OBJECTIVES

Pretest

Step 1 In each of the following four statements, name the part that has been underlined. Write the name of the underlined part (i.e., actor, behavior, condition, or degree of success) on scratch paper. Do not write in this manual.

A. Given a list of three occupations and the *Occupational Outlook Handbook*, the student will identify the age, training, and work environment for each of the occupations.

B. Given two job applications, the student will complete the applications without error.

C. Given a list of three occuaptions, the student will list the post-high school educational preparation needed and where he/she can secure it for at least two occupations. Accuracy will be judged by a teacher or counselor.

D. Given a list of ten-fifteen occupations, the student will list at least five worker traits (e.g., aptitudes, interests, temperaments, educational attainment, earnings, etc.) related to success in one occupation.

Step 2 Which of the following five statements is/are behavioral objective(s)? If a statement is not a behavioral objective, name the missing part. Do all your writing on scratch paper.

Statement

A. Given a series of five occupational clusters, students will list from memory two occupations that are in each cluster.

B. Given a list of references, students will know the appropriate sources for finding job openings.

C. Students will correctly fill out job application forms.

D. After selecting two occupations of interest, students will list school courses and community experiences that relate to the occupations. The list will be reviewed by a counselor.

E. Given a list of ten sources, students will identify those sources in which salary/wage information can be found.

Answers for Pretest

Step 3 Compare your answers for the questions in Steps 1 and 2 with those given below.

ANSWER:	Step 1 —	A. Condition D. Degree of success	B. Actor	C. Behavior	
	Step 2 —	A. Yes E. No-degree of success	B. No-behavior	C. Yes	D. Yes

A. If all your answers were correct, go to Chapter B on page 29.

B. If you missed no more than one question in either Step 1 or Step 2, skim the remainder of this chapter starting with Step 4 on the next page. Then answer the questions in the post-test at the end of the chapter.

C. If you missed more than one question in Steps 1 and 2, continue with Step 4 on the next page.

Step 4 A behavioral objective is a statement that describes what a person should be able to do after completing a learning experience. Good behavioral objectives give the person a clear understanding of what is expected of him/her. In other words, they are a means of communicating very important information.

Step 5 Behavioral objectives contain four parts or portions. The terms you will need to know begin with the first four letters of the alphabet, "ABCD."

A.	Actor(s)	The group of students (or others) who will perform a desired task
B.	Behavior	A task that the actor can be seen or heard performing
C.	Condition(s)	(An optional part of behavioral objectives) What the actor has to work with to perform the desired task; can be materials or a setting
D.	Degree of Success	The criterion that can be used to determine whether a student has successfully mastered the behavior prescribed by the behavioral objective

Actors

Step 6 A behavioral objective specifies what specific persons or "actors" will be able to do after completing a learning experience. The actor, the person who will perform a given task, should usually be a student. It is sometimes helpful to write behavioral objectives for different groups of students. For instance, there are groups of students within this school with different future plans. There are students with no set plan for the future, students who plan to get a job right after high school, students who plan to obtain occupational training, students who plan to attend college, and students who plan to stay home. Behavioral objectives can be written for each of these groups.

Step 7 In some instances, it may be desirable to specify grade level for students. The grade level specified for a student should only indicate that the behavioral objective should be achieved by the time students leave that grade. It should not mean that a student in a lower grade level cannot or should not achieve the objective.

NOTE: For the following steps, use a cover sheet to cover the answers beneath the step you are reading. Move your cover sheet down the page after you read and write your answer to each question. Do not write directly in this manual.

Step 8 In CPSS, who are usually the actors in behavioral objectives?

A. Counselors and teachers B. Parents C. Students

ANSWER: C is correct. Objectives in CPSS are usually stated in terms of student behavior.

Step 9 Underline the phrase describing the actors in the following behavioral objective:

> Students who plan to attend a vocational school will volunteer for a part-time job in their area of interest from a list of thirty available jobs.

ANSWER: You should have underlined "Students who plan to attend a vocational school" because they are the specific group of actors to whom this objective applies.

Step 10 In CPSS, the actors can also be others. Behavioral objectives can be written for students as well as a variety of adult actors, such as teachers, counselors, parents, local employers who are participating in the work study or other school programs, or members of the community in business and industry. These behavioral objectives describe the competencies adults need to better help students prepare for further education and careers. All changes in adult behaviors should lead to desirable changes in student behavior. To guide the behavior of adults, without demonstrating further effects upon the learner, would be insufficient.

Step 11 Find the phrase describing the actors in the following behavioral objective:

> Given a list of five community job placement agencies, the teacher will list the special services and features of each agency. The special services and features will include such things as their functions, their customers, and their success rate in placement.

ANSWER: "The teacher" is the correct answer.

Step 12 The objective in Step 11 could be rewritten so that it is a behavioral objective with students as the actors instead of teachers and counselors. For example: Given a list of five community job placement agencies, the student will personally contact and list the special services and features of those agencies to the satisfaction of his/her classmates. (It is important to consider all objectives written for adult actors in light of their ultimate impact on students.)

Step 13 Find the phrase describing the actors in the following objective:

> Given information about five state-supported colleges or universities, parents of college-bound seniors will compare them in terms of their advantages and disadvantages.

ANSWER: You should have located "parents of college-bound seniors." They are the specific group of actors that will perform the task described in this behavioral objective.

Behavior

Step 14 The behavior portion of a behavioral objective states what the actor should be able to do. This behavior portion describes an "observable" action. An observable action can be seen or heard. The key words to look for are verbs open to few interpretations rather than many. This difference is illustrated in Table 1.*

Table 1. Desirable and Undesirable Action Words

Undesirable (Words open to "many" (interpretations)	Desirable (Words open to "fewer" interpretations)
To know	To recall
To understand	To illustrate
To really understand	To identify
To appreciate	To name
To fully appreciate	To demonstrate
To grasp the significance of	To construct
To enjoy	To change
To believe	To compare
To trust	To order

Step 15 The list in Table 1 can be expanded to include more words on both sides. When writing your own behavioral objectives, use words open for "fewer" interpretations and test to see if your objective is written in behavioral terms by asking the question, "Can I see or hear the actor performing this task?" If the answer is no, then the objective is not written in behavioral terms.

*Based on Robert F. Mager, *Preparing Instructional Objectives* (Palo Alto, California: Feron Publishers, 1962).

Step 16 What should the behavior portion of a behavioral objective specify?

A. What the actor will be able to do

B. What the actor will understand

ANSWER: A is the correct answer. The behavior portion states what the actor is able to do to achieve this objective.

Step 17 Which of the following phrases describes an observable activity?

A. To appreciate

B. To describe

C. To understand fully

ANSWER: B is the best answer. The phrase "to describe" illustrates an action that can be heard or seen. You cannot see or hear a student "appreciating" or even "understanding fully." If you did not answer this question correctly, go back to Step 14 and reread the section on behavior.

Step 18 In the example below, the behavior portion of the statement is underlined:

Given their scores on a vocational interest inventory, students will choose two occupations in which they are interested. A counselor will judge whether the choices are suitable.

The underlined phrase describes what it is desired that the student do.

Step 19 Find the behavior portion of the following behavioral objective.

Given a variety of pamphlets and bulletins from colleges and vocational-technical schools, students will contrast the time and cost of education for at least three careers.

ANSWER: "Will contrast the time and cost of education" is the correct answer.

Step 20 Who is the actor in the behavioral objective in Step 19?

ANSWER: "Students" are the actors in that example.

Step 21 Underline the behavioral portion and the actor(s) for the objectives below.

Given three different job application forms, students will complete each form without error.

ANSWER: "Will complete each form" is the behavior that is performed by "students," who are the actors.

Step 22 It should be kept in mind that the behavior portion specifies knowledge, skills, or attitudes. A behavior should not specify what an individual is doing to or for another individual. An example of behavior stated in an undesirable way is:

In a communications course, the teacher will assist the student to complete job applications.

This statement describes a "process" in which teachers participate rather than the knowledge, skills, and/or attitudes that teachers should have in order to assist students.

Step 23 Is the following statement a behavioral objective?

The counselor will help students identify career information sources.

A. Yes

B. No

ANSWER: No. The statement is not truly a behavioral objective since it does not explicitly describe what a counselor needs to know, do, or feel. Neither does it describe the knowledge, skills, or attitudes that a student should have. The following two statements are behavioral objectives.

The counselor will describe at least three sources in which students can acquire information on careers.

The student will list three sources of career information available in the school.

Step 24 Is the following statement a behavioral objective?

The school will provide a job placement service for students.

ANSWER: No. The statement describes a method by which students can identify jobs and acquire employment. It does not describe the knowledge, skills, or attitudes needed by students to identify jobs and acquire employment. In other words, the statement describes a method that students can use to acquire jobs and does not indicate that they do in fact, acquire employment.

Conditions

Step 25 The conditions portion of a behavioral objective describes the conditions under which the desired behavior will be performed. Conditions describe either the setting of the actor or state what materials or information will be given to the actor to perform the desired task. The conditions statement is usually placed at the beginning of a behavioral objective. A condition is used to clarify the objective. Therefore, it is an optional part of a behavioral objective.

Step 26 The example below contains two behavioral objectives, including conditions. The conditions are underlined in each objective. In the first objective, the condition is materials. In the second objective, the condition is a setting.

A. Given a list of employers, the faculty member will describe the procedures for placing students in part-time jobs.

B. In a simulated job interview, students will demonstrate skill in interviewing to the satisfaction of the teacher. The student will have a checklist as a basis for determining student performance.

Step 27 What does the conditions portion of a behavioral objective describe?

A. The task the actor is to perform

B. The materials that will be given to the actor

ANSWER: B is the correct answer. The condition portion may also describe the setting in which the behavior will occur or a prerequisite experience of the actor.

Step 28 Which of the following statements is a condition?

A. Using the *Dictionary of Occupational Titles*

B. Will differentiate between professional and paraprofessional jobs in the field of medicine.

ANSWER: A is the correct answer. This statement tells us what materials an actor will be given when performing the required task. If you selected B, you selected a behavior pattern. (Remember: the behavior portion is a phrase with a word describing what the actor should do.)

Step 29 Does the following objective have a condition portion?

Counselors and teachers will list and describe all the social/personal counseling services available in the community.

A. Yes

B. No

ANSWER: B is correct. There is no condition given in this objective. Conditions are optional if the setting, prerequisite experiences of the actors, or materials given to the actors to perform the task do not need to be clarified. A condition that could have been stated is: "After conducting a telephone interview with community social agencies, . . ."

Step 30 Point out the condition portion, if any, in this objective.

After reading a required paper on career opportunities and interviewing five individuals in different occupations, students will describe at least six key factors in the selection of a career.

ANSWER: "After reading a required paper on career opportunities and interviewing five individuals in different occupations" is the correct answer. This objective has two conditions: (1) reading the paper and (2) interviewing workers. Condition portions often state more than one condition.

Degree of Success

Step 31 The remaining portion of a behavioral objective is the degree of success. The degree of success portion of a behavioral objective describes how the actor will be evaluated or how well and by when he must perform a given task to be successful. Key words to look for to identify the degree of success portion are descriptive adjectives or adverbs and numbers. The degree of success portion often appears at the end of a behavioral objective.

Step 32 What should the degree of success portion of a behavioral objective describe?

A. How the actor will be evaluated

B. What will be given to the actor

ANSWER: A is the correct answer. The degree of success portion of an objective describes how to measure or evaluate an actor's performance or what is required of the actor for success at a given task.

Step 33 The first way to specify the degree of success is by describing the minimum degree of success. The minimum, or least, the actor must do and still be successful may be specified by stating the minimum number (such as nine out of ten), percentage (such as 70 percent), proportion (such as 3/4), of correct responses needed to be successful.

Step 34 Which of the following is/are an example of degree of success?

A. Nine out of ten correctly

B. Students will contrast

C. Using the telephone directory

ANSWER: A is the correct response. This answer specifies the minimum number of correct responses. B is a behavior statement and C is a condition.

Step 35 The degree of success portions are underlined in the following examples.

Minimum number	1.	Given the names of fifteen occupations, students will correctly describe at least ten of the occupations.
Minimum percentage	2.	Given a standardized career maturity inventory, students in grade twelve will score at or above the fiftieth percentile for their grade level.
Minimum portion	3.	Given a list of sources for obtaining occupational information, students will obtain information from at least one-third of these sources during a six-week period.

When numbers are used to specify degree of success, they should not be set arbitrarily. There should always be a logical rationale for starting the minimum number of items that must be included.

Step 36 What may the degree of success portion of a behavioral objective specify?

A. The proportion of correct responses required for success

B. The task the actor is to perform

C. The minimum percentage of correct responses

ANSWER: Both A and C are correct. If you chose either or both of these, you are right. Choice B is a description of the behavior portion.

Step 37 Underline the degree of success in the following objective.

After listing eight medical careers, students will list the training requirements for at least five correctly.

ANSWER: "At least five correctly" is the correct answer.

Step 38 A second way to specify degree of success is to state those items that must be included in the response in order for the response to be correct. Then, no matter how else or how much the actor responds, he cannot be successful unless he includes the required items. The degree of success portion is underlined in the example below.

Given a variety of sources for obtaining career information, students will prepare a personal information file. Each student's file must contain the following:

A. A sample job placement form

B. Information from local employment agencies about the local availability of jobs

C. Information from the U.S. Department of Labor about the nationwide availability of jobs

D. Career literature, describing at least three occupations within the student's chosen career cluster

E. A self-report to be updated monthly about changing personal career goals

F. Personal results on a standardized interest survey

Step 39 Which of the following is a way of specifying the degree of success?

A. Specify the actors

B. List required items

C. State the conditions

ANSWER: B is the correct answer. By listing the items that are required for an answer to be correct or an activity to be completed, it can be determined whether the objective has been achieved.

Step 40 Which of the following is not an example of a degree of success?

A. Using the want ads section

B. By listing three resource books

C. Without error

ANSWER: A is the correct answer. It specifies a condition and not a minimum standard for success as in C or the items that must be included for the response to be correct as in B.

Step 41 The third way to specify the degree of success is by setting time limits. How well a student must do to be successful may be stated, in some cases, by setting a time limit. For instance, we may ask a student to "Type a 200-word passage within three minutes." This objective measures the time it takes a student to accomplish the task because in typing, speed is important. Time limits also can be set to measure duration. For instance, "Students will hold a part-time job for at least three months."

Step 42 Which of the following is/are example(s) of a degree of success portion for a behavioral objective?

A. Three out of five

B. In ten minutes

C. Sixty percent correct

ANSWER: A, B, and C are all correct. A is a minimum number that would be acceptable, B is a time limit, and C is a percentage. All of these are ways of specifying degree of success.

Step 43 The fourth way to specify the degree of success is to indicate the person or persons who will judge or evaluate the performance as successful. Some of the most common words and phrases that are used in behavioral objectives to judge student success are listed in Table 2, below.

Table 2

To be	by
reviewed	a counselor
judged	a teacher
graded	an employer
rated	classmates
evaluated	parents
checked for accuracy	self
checked for completeness	

Step 44 The degree of success portions are underlined in the following example.

Given the requirement that each student complete a successful job before graduating, students will participate in at least one job experience and will be evaluated for the "successfulness" of their experience by their employer, their counselor or teacher, and themselves.

Step 45 Find the degree of success portion for the following behavioral objective.

College-bound seniors will explain their reasons for selecting the colleges they have chosen to attend. A counselor will assess the soundness of their reasons.

ANSWER: "A counselor will assess the soundness of their reasons" is the correct answer. The counselors will determine if the responses meet intended performance levels.

Step 46 The fifth way to specify the degree of success is to use a descriptive word or phrase that sets a standard for success. Some of the most common words and phrases that are used in behavioral objectives to set standards for success are listed in Table 3, below.

Table 3

Words	Phrases
Correctly	Without error
Accurately	Error-free
Successfully	That meets predetermined standards
Adequately	That meets established criteria
All	At an acceptable performance level
Completely	
Exactly	

Step 47 The degree of success portion is underlined in the following example.

Given instruction from a counselor or teacher, students will make a career informa-information list that meets predetermined standards.

Step 48 The sixth way to specify the degree of success is by stating the grade level at which point the student should achieve the behavior. In other words, the student should have or achieve a certain objective by the end of a certain grade level. It should not mean that a student in a lower grade level cannot or should not achieve the objective. Furthermore, the specification of a grade level almost always appears along with another degree of success, such as "without error," "reviewed by the teacher," or "eight out of ten."

Step 49 The degree of success portion is underlined in the following behavioral objective:

> Students will list five commonly held negative attitudes about women pursuing careers to the satisfaction of his/her classmates by the end of the junior year.

Step 50 List three of the six ways of specifying degree of success.

ANSWER: You should have listed any three of these six things:

A. State a minimum number, percentage, or proportion of correct responses.

B. State items that must be included for the response to be acceptable.

C. Set a time limit.

D. Indicate the person who will judge whether the performance is successful.

E. Use descriptive words or phrases.

F. State the grade level by which a student should achieve the behavior.

Step 51 Whenever possible, a degree of success should be explicitly stated. In some cases, however, it may not be necessary to do so because it is already implied by the wording of the objective. For example:

> Counselors will describe the social and personal counseling services available in the community.

It is implied that counselors will describe all community services without formally specifying so.

> The student will describe the procedure for acquiring assistance with post-high school job placement through the school.

It is implied that the student will describe the procedure without error.

Step 52 When can a degree of success portion be deleted?

A. When requirements for success are implied by the objective

B. When it is difficult to specify a degree of success

ANSWER: A is correct, but B is definitely incorrect. It will often be difficult to specify meaningful success criteria but a serious attempt should be made to do so.

Step 53 Does the following objective require a formal degree of success portion?

Given a list of three careers, students will show their interest in a career by selecting it for further exploration.

A. Yes

B. No

ANSWER: B is the correct answer. The degree of success is assumed to be "without error."

Step 54 Check your understanding of this chapter by completing the post-test on the next page.

Post-test

Step 55 Write the name of the underlined parts of each of the following objectives on scratch paper.

Do not write in this manual.

A. Given a role-playing situation, the student will interview for a position. Adequacy of the demonstration of social and communicative skills will be judged by peers.

B. Given four job announcements, the student will outline the procedures that should be followed in applying for the positions.

C. The student will prepare a personal resume. The resume should include at least the following: personal data, educational data, employment data, and references.

D. Given selected information from his/her cumulative records, the students will discuss (or write) the effects that his/her perceived accomplishments have had on his/her occupational aspirations. A counselor will discuss the realism of the perceptions with the student.

E. Given a university undergraduate catalogue, a vocational school catalogue, and an appropriate program in each, the teacher will outline the procedures for applying to each of the institutions. The procedures should include the preparation of all necessary materials specified in the catalogues and all necessary addresses.

Step 56 Which of the following statements is/are behavioral objective(s)? If a statement is not a behavioral objective, state why.

Statement

A. Students will know how to operate a super-8 mm motion picture projector to the satisfaction of the media specialist.

B. Given data obtained from the U.S. Department of Labor and a list of five occupations, rank the occupations according to the nationwide availability of positions without error.

C. Given three occupations and the *Occupational Outlook Handbook*, the student will list the prerequisite education for initial entry into each of the occupations.

D. Given information of aptitudes, interests, and prior work experience, counselors will assist twelfth grade students with making career decisions by the third quarter.

E. Students will identify five characteristics necessary for a successful job interview to the satisfaction of the teacher. Characteristics will include such things as timeliness, dress, attitude, preparation, and communication skills.

Answers for the Post-test

Step 57 Compare your answers to the post-test with those below:

ANSWERS:

Step 51 A. Behavior B. Behavior C. Actor

D. Condition E. Degree of success

Step 52 A. No, because the behavior (know how to operate. . .) is neither observable nor measurable.

B. No, because an actor is not specified.

C. Yes.

D. No, because the counselor is doing something to or for a student. The behavior as stated is a "process." To be a behavioral objective, the statement should have specified what counselors should know or be able to do or feel in measurable and observable terms.

E. Yes.

A. If you missed no more than one of the post-test questions proceed to Chapter B that begins on the next page.

B. If you missed more than one question, review areas of this chapter that were difficult for you, then proceed to Chapter B and begin with the pretest on the next page.

B. TYPES OF BEHAVIORS

Pretest

Step 1 Classify each of the following types of behaviors as cognitive, affective, or psychomotor. Do not mark in this manual.

A. Analyzes a problem

B. Appreciates music

C. Improves penmanship

D. Obeys a rule

E. Summarizes a report

F. Types a letter

G. Understands a concept

Answers for the Pretest

Step 2 Compare your answers to the question in Step 1 with the following key:

ANSWERS:	Cognitive behaviors - A, E, G.
	Affective behaviors - B, D.
	Psychomotor behaviors - C, F.

A. If you classified incorrectly more than two behaviors, you should continue this chapter at Step 3 on the next page.

B. If you classified incorrectly one or two of the behaviors, you may want to skim the remainder of this chapter and complete the post-test at the end of the chapter.

C. If you classified correctly all of the behaviors, you may want to skip this chapter and go on to Chapter C.

Step 3 You should now understand what behavioral objectives are and that behavioral objectives have four parts: actor, behavior, condition, and degree of success. This chapter takes a closer look at the behavioral portion of objectives.

Step 4 For the sake of discussion, behavior can be classified into three "domains"*: (A) cognitive, or thinking, (B) affective, or feeling, and (C) psychomotor, or physical skill areas.

Step 5 Frequently, behaviors considered when writing objectives are restricted to the cognitive area. However, it is very important that attention be paid to the affective areas of behavior as well. It is important that students remember information and develop skills and abilities, but it is equally important that students develop interests, attitudes, appreciations, and values about career development. People probably retain more information or skills over a longer period of time in areas of study that they value and enjoy. The distinction between cognitive and affective behaviors will be explored more fully so that both areas will receive attention when selecting behaviors for objectives in your career guidance program.

Cognitive Domain

Step 6 The cognitive domain involves such behaviors as thinking, knowing, and problem-solving. This area is concerned with the ability to retain knowledge, understand principles and concepts, apply information or skills, and evaluate information. Examples of cognitive behaviors are:

A. List types of information needed for career decisions.

B. Describe a process used in career decision-making.

C. Apply a decision-making process to career choice.

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*B. S. Bloom, ed., *Taxonomy of Educational Objectives: The Classification of Educational Goals. Handbook 1. Cognitive Domain* (New York: McKay, 1956).

D. R. Krathwohl, B. S. Bloom, and B. B. Masia, *Taxonomy of Educational Objectives: The Classification of Educational Goals. Handbook 2. Affective Domain* (New York: McKay, 1964).

Affective Domain

Step 7 The affective area of behavior involves attitudes, interests, values, social adjustment, and the development of appreciation. This area is concerned with specifying behaviors that will reflect the student's feelings toward the material he/she is studying or the willingness to do something. Does he/she consider a particular topic under study to be important to him as a person? When he/she has completed a course, does he/she feel his/her time has been well spent? What in his/her behavior tells us he/she values a particular experience, idea, or course of action?

Some examples of affective behavior in career guidance are:

A. Shares information that he/she has acquired about selecting a career with parents, friends, teachers, etc.

B. Suggests an acquaintance that could serve as a source of information on careers

C. Voluntarily seeks out books on careers in the library

D. Elects to take a follow-up course in career development

E. Persuades friends to become involved in career guidance activities

Step 8 It may be necessary to specify a variety of affective behaviors for any given goal so that students will not be locked into one way of expressing their interests, values, and feelings. For example, if a stated goal were "Students will be interested in career choice and planning," any of the examples of behavior give in Step 7 could be a way of expressing this interest.

Psychomotor Domain

Step 9 Behaviors in the psychomotor area emphasize physical skill. They include gross body movements, fine motor movements, speech behaviors, and nonverbal communication behaviors, such as gestures and body movements. The behaviors in this area may not be as important to your career development program as the behaviors in the cognitive and affective area. You will find that the majority of your behavioral objectives will emphasize cognitive and affective behaviors.

Less and More Complex Behaviors

Step 10 Objectives that describe simple or basic behaviors, such as the knowing and recalling of facts or the showing of interest in an object, are usually easier to write than those of more complex behavior. Basic behaviors may also be important prerequisites to the achievement of program goals, but a set of objectives that only specify simple behaviors may only skim the surface of a problem. You may, therefore, need to consider more complex behaviors, such as the comparing and combining of objects and the accepting of one's own strengths and weaknesses. It may be more difficult to specify complex behaviors in observable and measurable terms, but the effort can result in important benefits.

Step 11 As an example, a goal for a career guidance program may be as follows:

> Students will be able to select a college or university to attend after graduation.

In order for students to select a college, they may need to be able to do the following:

> Given a catalogue for a state university, an out-of-state public university, and a private college, the student will list the tuition, living expenses, location, and programs for each.
>
> The student will show awareness of the need for knowing about a variety of colleges before selecting any to attend, as indicated by voluntarily looking at two or more catalogues.
>
> The student will describe the social and cultural activities available at the state university, an out-of-state university, and a private college.

The above objectives describe relatively less complex behaviors. However, students may need to achieve more complex behaviors in order to achieve the goal, such as the following:

> The student will compare the cost for attending three different universities or colleges for four years with his/her ability to finance a college education.
>
> Given a major area of study, the student will summarize information on the quality of the program offered by three universities in that major area, using such indicators as number of courses offered in the program, number of students in the program, and number of faculty.
>
> Given the name of one university, the student will compare the social and cultural offerings of the university with his/her own values.

Step 12 The following is another example of complex and simple behaviors. Those noted as (M) are the more complex behaviors and (L) are the less complex ones.

Goal: Students will be able to apply for a job.

Behavioral Objectives:

The student will complete three job application forms. (M)

The student will list work experiences beginning with the most recent. Each entry will include at least: (1) name of employer, (2) address of employer, (3) title of position, and (4) duration of employment. (L)

In a role-playing situation, the student will interview for a job. His/her peers will judge whether the student's communicative and social skills are adequate. (M)

The student will describe guidelines for job interviewing, including (1) dress, (2) behavior, (3) knowledge of employer, and (4) courtesies to interviewers. (L)

Step 13 The Appendix contains a list of sample behaviors in the cognitive and affective domains that may be useful when deriving behavioral objectives. Within each domain, the sample behaviors are grouped by levels of complexity—from the less complex to the more complex behaviors. By themselves, many of the terms are not observable or measurable behaviors and must be combined with other terms to become so. As an example, the behavior "shows interest in [a career]" is not observable or measurable in itself. However, "shows interest in a career by voluntarily asking for more information about the career" is measurable and observable. The combination of the non-observable behavior "shows interest in" and the observable behavior "by asking for more information. . ." could better communicate the intent of the objective than either one by itself.

Step 14 Check your understanding of this chapter by completing the post-test on the next page.

Post-test

Step 15 Classify each of the following types of behaviors as cognitive, affective, or psychomotor.

A. Accepts responsibility

B. Compares methods

C. Describes a process

D. Drives a tractor

E. Plans a course of action

F. Shows interest in

G. Turns an object

Answers for the Post-test

Step 16 Compare your answers to the question in Step 14 with the following key:

ANSWERS:	Cognitive behaviors - B, C, E.
	Affective behaviors - A, F.
	Psychomotor behaviors - D, G.

A. If you classified incorrectly more than two behaviors, you may want to review this chapter before going on to Chapter C.

B. If you classified incorrectly two or fewer behaviors, go on to Chapter C on the next page.

C. TYPES OF BEHAVIORAL OBJECTIVES

Step 1 A behavioral objective is a statement that describes what a person should be able to do after completing a learning experience. Good behavioral objectives give the person a clear understanding of what is expected of his/her. In other words, they are a means of communicating very important information. Although it may be possible to define a goal operationally with only one behavioral objective, more often than not two or more objectives will be needed to indicate all of the knowledge, skills, and feelings necessary for students to achieve a goal. Furthermore, an individual or a variety of people may need to have certain knowledge, skills, and attitudes before an objective can be achieved. This chapter proposes a scheme for classifying behavioral objectives as either criterion behavioral objectives or enabling behavioral objectives that may help you to identify the different kinds, or sets, of knowledge, skills, and feelings necessary for fully achieving a goal. It may also be helpful for arranging behavioral objectives into topics and putting them in logical sequence.

> NOTE: Hereafter, we will call enabling behavioral objectives and criterion behavioral objectives simply enabling objectives and criterion objectives. It should be remembered that they are two types of behavioral objectives with the only difference being that a criterion objective is derived from the goals and always has the student as actor. An enabling objective is derived from the criterion objective and can have others as well as students as actors.

Criterion Objectives

Step 2 Criterion objectives are directly derived from program goals. They define the knowledge, skills, and attitudes that are needed by an actor to achieve goals. Criterion objectives are often called "terminal objectives" since they describe only the final or ultiamte set of knowledge, skills, and attitudes needed by an individual to demonstrate the achievement of program goals. The following is an example of a goal and a criterion objective that could have been derived from the goal.

Goal: Students will know how to apply for a job.

Criterion Objective: Given three job application forms, the student will complete the forms without error.

Step 3 Since the ultimate beneficiaries of a career guidance program are students, the actors for criterion objectives should always be students.

Step 4 In some instances, you may be able to define a goal fully and operationally with only one criterion objective. However, two or more criterion objectives may be needed to indicate all the behaviors for a goal achievement.

Enabling Objectives

Step 5 An enabling objective specifies knowledge, skills, and attitudes that are needed by students to achieve a criterion objective. Enabling objectives may also specify the capabilities needed by teachers, counselors, administrators, parents, etc., to assist or enable a student to achieve a criterion objective. An enabling objective may also specify prerequisite knowledge, skills, and attitudes for another enabling objective. As its name implies, then, an enabling objective specifies behavioral outcomes that will enable an individual to achieve another behavioral objective.

Step 6 The following is an example of a set of behavioral objectives derived from the goal given.

Goal: Students will know how to apply for a job.

Criterion Objective: Given three job application forms, the student will complete the forms without error.

Enabling Objectives:

A. The student will list all schools and other types of educational programs he/she has attended, beginning with the most recent. The list should contain: (1) name of school and/or program, (2) address of school and/or program, (3) dates of attendance, and (4) certificates, diplomas, etc. received if appropriate.

B. The student will list all work experience, beginning with the msot recent position. The list should include at least: (1) name of employer, (2) address of employer, (3) title of position, and (40 duration of employment.

C. The student will list criteria for selecting individuals to serve as employment references. The criteria should include: (1) knowledge of applicant's attitudes, interests, etc.; (2) familiarity with applicant's abilities; and (3) relevance of the reference's contact with the applicant to the position being applied for.

Step 7 Figure 1, below, gives examples of the ways in which criterion and enabling objectives may be related to each other. In summary,

A. One or more enabling objectives may be needed to define a criterion objective fully.

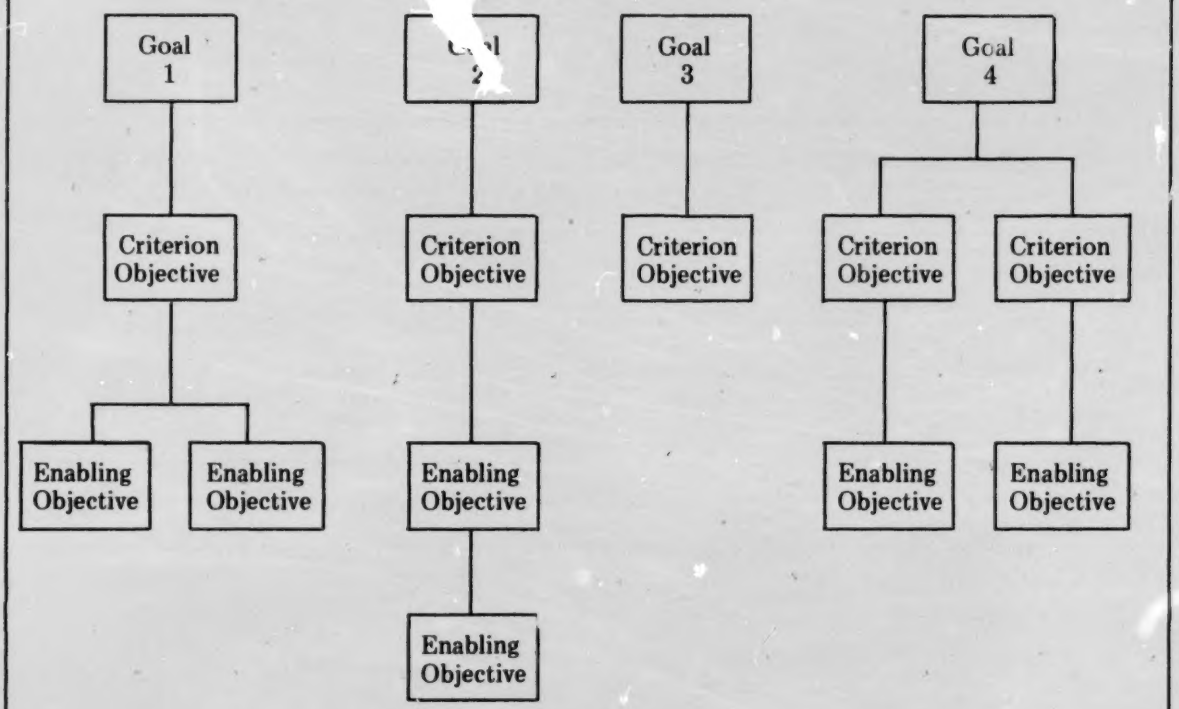
B. The achievement of an enabling objective may first require the achievement of other enabling objectives.

C. It may not be necessary to specify any enabling objectives for a criterion objective.

D. All enabling objectives must be related to a criterion objective; that is, you cannot have an enabling objective unless you have a criterion objective.

Figure 1

Various Relationships of Criterion and Enabling Objectives



Step 8 Check your understanding of this chapter by completing the post-test on the next page.

Post-test

Step 9 Indicate whether each of the following four statements is true or false. Do not write in this manual.

A. It is possible to have an enabling objective without having a criterion objective.

B. A criterion objective may be derived from another criterion objective.

C. An enabling objective may be derived from another enabling objective.

D. Students, teachers, counselors, and parents may be actors for criterion objectives.

Answers for the Post-test

Step 10 Compare your answers to the questions in Step 9 with those given below.

ANSWERS: A. False. B. False. C. True. D. False.

A. If you answered any of the questions incorrectly, you may want to review Chapter C.

B. If you answered all of the questions correctly, go on to Chapter D on the next page.

D. DERIVING CRITERION AND ENABLING OBJECTIVES

Step 1 Program goals provide the general structure for a career guidance program, but they are usually too global in scope and not stated specifically enough to build an effective program. Program goals can be made attainable and measurable by translating them into criterion objectives. The derivation of criterion objectives from a goal is a process of specifying knowledge, skills, and attitudes that are needed to show the achievement of a program goal. Stated another way, a program goal has been achieved when criterion objectives that define it have been achieved.

Step 2 A criterion objective that is derived from a goal will describe in specific terms what the goal or a part of the goal describes in general terms. Consider the following example:

Goal: Students will know how to apply for a job.

To develop a criterion objective from this goal, the first question to be answered is:

What skills would a student need to be able to achieve this goal? To apply for a job, an individual must know how to complete application forms correctly, how to participate in a successful job interview, etc.

After listing the skills needed to achieve this goal, the question to be answered: Given one of the necessary skills, how can we determine whether or not a student has acquired the skills? Thus, a behavioral objective describing the skills needed to complete job applications might be stated as follows:

Criterion Objective: Given three job application forms, the student will complete the forms without error.

Step 3 It is important that a criterion objective be derived directly from a stated goal. The following objective, although closely related, does not follow directly from the goal, "Students will know how to apply for a job."

Criterion Objective: The student will list sources of information on employment opportunitites. The sources must include at least: (1) classified advertising in newspapers, (2) state employment offices, (3) private employment offices, and (4) friends or relatives.

This objective may more appropriately have been derived from a goal that is concerned with student's capability to find job openings.

Step 4 Is the objective below related to the goal?

Goal: The student will be aware of his/her career interest and capabilities.

Criterion Objective: Given the results of an aptitude test, the student will list the areas of highest and lowest aptitudes that were indicated on the particular test.

ANSWER: Yes. If used properly, aptitude tests can provide one type of information that students can use to become more aware of their interests and capabilities.

Step 5 Is this objective related to the goal?

Goal: The student will be able to apply for a job.

Criterion Objective: After developing a list of jobs of interest to himself/herself, the student will rank them in order of preference and discuss the list with a counselor.

ANSWER: No. The goal is concerned with skills needed in the actual job application process. The behavioral objective, although important, refers more to selection of a job based on interests, values, abilities, etc., than to the procedure of applying for a specific position.

Step 6 Has each of the following criterion objectives been derived from the goal?

Goal: Students will know the chracteristics of the career clusters.

Criterion Objectives:

A. The student will list the career clusters.

B. Given the name of two career clusters, the student will describe each career cluster. The description should include information on at least: (1) physical work environment, (2) personal interaction, (3) nature of work, and (4) the names of five occupations in the cluster.

C. Given the name of one career cluster, the student will list his/her personal characteristics that are similar to and different from those most typically possessed by individuals in careers of the cluster.

ANSWER: A. Yes

B. Yes

C. Probably no. The goal is primarily concerned with the knowledge of a variety of careers and not the application of that knowledge as indicated by the criterion objective.

Step 7 Criterion objectives describe in specific terms what the goal or part of the goal describes in general terms. Criterion objectives can be made more attainable and measurable by translating them into enabling objectives.

Consider the following:

Criterion Objective: The student will write a report on "what career guidance services are available in the school and community." The teacher will determine the adequacy of the report, using a list of school and community services.

To develop enabling objectives from this criterion objective, the first question to be answered is: In what ways can this criterion objective be broken down so that its achievement can be facilitated? In other words, what are some attainable and measurable approaches to assist students in achieving the criterion objectives? Some enabling objectives to the above criterion objective might be stated as follows:

A. Given the community as a resource, the student will contact a private job placement company and determine the services available and the costs to the user. The student will report the findings to the class.

B. Immediately following a presentation by the U.S. Employment Bureau, the student can list the services available through the bureau and the method of securing these services. Adequacy is to be judged by the instructor.

C. After a visit and a presentation as to services available in the career information center, the student will list the services available and select and research an occupation of interest using the center as his/her resource.

D. Following group discussion with a counselor, the student can describe the career guidance services that are offered through the counseling department.

Step 8 Is the enabling objective below related to the criterion objective?

Criterion Objective: Given the *Dictionary of Occupational Titles* and the *Occupational Outlook Handbook*, the student will list three characteristics (such as labor market demand, salary range, and educational requirements) for three different occupations to the satisfaction of the teacher.

Enabling Objective: Given the *Dictionary of Occupational Titles*, the *Occupational Outlook Handbook*, and the names of three occupations, the teacher will list the educational requirements for entry into each of the three occupations.

ANSWER: Yes. The enabling objective breaks down the criterion objective to facilitate student achievement of the criterion objective and clearly indicates that the teacher will acquire skills and knowledge to directly assist the student.

Step 9 Is the enabling objective below related to the criterion objective?

Criterion Objective: The student will identify four ways to deal with problems (such as employer-employee relations or job layoffs) that he/she may encounter on the job. Adequacy of the report will be determined by the teachers.

Enabling Objective: The teacher will inform students of various ways of coping with problems while on the job.

ANSWER: No. The enabling objective does not state what knowledge or skills are needed by the teacher in order to assist students in the achievement of the criterion objectives. Additionally, the enabling objective describes only a process or method a teacher can use.

APPENDIX

EXAMPLE BEHAVIORS FOR OBJECTIVES*

Cognitive Domain

Level I Knowledge (Emphasis is on recall. Lowest level of complexity)	choose define complete recognize name list select	identify indicate label match locate reproduce
Level II Comprehension (Emphasis is on showing understanding)	translate transform give in own words give examples prepare represent change reorder describe express convert classify	interpret rearrange differentiate** distinguish make draw explain paraphrase

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*The examples were compiled with the help of these sources:

B. S. Bloom, *Taxonomy of Educational Objectives: The Classification of Educational Goals.* Handbook I: Cognitive Domain (New York: David McKay Company, Inc., 1965).

D. R. Krathwohl, B. S. Bloom, and B. B. Masia, *Taxonomy of Educational Objectives: The Classification of Educational Goals.* Handbook II: Affective Domain (New York: David McKay Company, Inc., 1964).

N. E. Gronlund, Stating Behavioral Objectives for Classroom Instruction (London: Collier-Macmillan Limited, 1970).

**Duplication of action words or behavior among levels is not uncommon. The intent of the objective and what is to be measured determines the level in which the behavior falls.

Level III Application (Emphasis is on showing use or application)	apply	compute
	make	differentiate**
	demonstrate	find
	discuss	collect information
	use	plan
	keep records	prepare
	perform	solve
	relate	generalize
	develop	choose
	transfer	employ
	classify	restructure
	discover	change
	relate	manipulate
	show	operate
Level IV Analysis (Emphasis is on perceiving relationship of the parts and breakdown of the parts)	analyze	debate
	determine	differentiate**
	form generalizations	draw conclusions
	deduce	organize
	make inferences	identify
	distinguish	recognize
	discriminate	deduce
	categorize	compare
	contrast	break down
	detect	
	organize	
	outline	
	separate	
Level V Synthesis (Emphasis is on putting together elements or parts)	combine	develop
	design	write (original)
	produce	originate
	relate	document
	transmit	summarize
	modify	plan
	rearrange	compose
	generate	synthesize
	combine	
	devise	
	organize	
Level VI Evaluation (Emphasis is on making judgments. The level of greatest complexity)	evaluate	justify
	interpret	relate
	support	judge
	argue	validate
	assess	decide
	consider	contrast
	compare	
	appraise	
	conclude	

Affective Domain	
Level I Receiving (Emphasis is on willingness to receive or to attend to stimulus. The lowest level of complexity)	shows awareness of the importance of listens attentively shows sensitivity to accepts differences of attends closely to
Level II Responding (Emphasis is on interest in and satisfaction with thing)	completes assignment obeys rules participates in discussion completes volunteers for tasks shows interest in enjoys helping others
Level III Valuing (Emphasis is on beliefs, attitudes, values, and ideas)	demonstrates belief in appreciates the role of shows concern for demonstrates problem-solving attitude demonstrates commitment to
Level IV Organizing (Emphasis is on organizing, interrelationships, and weighing values)	recognizes the need for recognizes the role of accepts responsibility for understands and accepts formulates a plan
Level V Characterization by a Value or Value Complex (Emphasis is on internalized, integrated, and internally consistent value system. The highest level of complexity.)	displays demonstrates self-reliance in practices cooperation in uses objective approach in problem solving demonstrates industry, punctuality, and self-discipline maintains